

Faisal Khan, MBBS, MPH Director

April 6, 2015

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SUPERFUND DIVISION

Mr. Bradley Vann United States Environmental Protection Agency Region VII SUPR/MOKS 11201 Renner Boulevard Lenexa, KS 66219

RE:

Landfill Operable Unit-1, Bridgeton, Missouri Dear Mr. Vann:

Comments on Phase 1D Investigation - Additional Characterization of Extent of RIM in

Area 1: Addendum to Phase 1 Work Plans for Isolation Barrier Investigation, West Lake

This comment letter is in response to the above-referenced March 20, 2015 work plan addendum prepared by Engineering Management Support, Inc. (EMSI) to the United States Environmental Protection Agency (USEPA). We understand that EMSI's work plan addendum was prepared in response to the USEPA's January 15, 2015 letter to the responsible parties associated with the West Lake Landfill Administrative Order on Consent, Docket No. VII-93-F-005.

Along with the Missouri Department of Natural Resources (MDNR), the Saint Louis County Department of Health - Solid Waste Management Program (HD) provides regulatory oversight of the sanitary waste disposal facility at the Bridgeton Sanitary Landfill (BSL). As such, the HD has a vested interest in future plans at the adjacent West Lake Landfill associated with the subsurface smoldering event at the BSL, and how those future plans could potentially impact disposed sanitary wastes and current operations resulting from the construction of an isolation barrier. We request that the USEPA consider our comments as you review and evaluate the EMSI's submittal.

1. The work plan addendum states that the goal of the Phase 1D investigation is to complete the investigation of the extent of radiological impacted material (RIM) along the southern and western boundaries of Area 1. The work plan addendum proposes fourteen (14) boring locations that will include both gamma cone penetrometer testing (GCPT) and sonic core drilling methods. The proposed boring locations, shown on Figure 1 of the work plan addendum, have been placed to delineate the extent of RIM in areas of elevated gamma readings and/or radium or thorium concentrations above unrestricted use levels identified during previous Phase 1 investigations.

The HD seeks clarification of whether the scope of the proposed investigation is to further delineate the entire extent of Area 1 or to just delineate the extent of RIM where it would affect the placement of a possible isolation barrier. The HD suggests that additional borings are necessary to delineate the entire extent of Area 1 particularly to the south and west of previous Phase 1 borings GCPT 1C-2R and GCPT 1C-6T (situated in the far southwestern corner of Figure 1) that exhibited elevated gamma readings. As illustrated in the work plan addendum, delineation borings are proposed to the north and east of these locations but not to the south and west. 0714



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The HD considers it critical to delineate the entire extent of potential RIM outside of the current boundary of Area 1 even in the vicinity of the Bridgeton Transfer Station.

- 2. The work plan addendum anticipates that the sonic drill rig will be set up within 5 to 10 feet of the locations of the previously completed GCPT borings. The HD recommends that the sonic drill boreholes be placed within 5 feet of the GCPT borings to ensure lateral control and integrity (unless ground surface conditions require otherwise)
- 3. Table 1 of the work plan addendum indicates that the maximum anticipated bottom of the borings shall be at an elevation of approximately 431.6 feet above mean sea level (amsl). According to the February 16, 2015 Detection Monitoring Program Groundwater Statistical Analysis Report prepared by Herst & Associates for the BSL, alluvial zone groundwater levels in the areas of the proposed borings on November 18, 2014 ranged from 431.28 to 432.01 amsl. The HD recommends that Phase 1D borings do not intercept the groundwater table to limit the risk of cross-contamination.
- 4. The first Legend icon in Figure 1 is labeled "Phase 1D Boring Location". This icon should more accurately be labeled "Previous Phase 1 Boring Location".
- 5. The blue dashed line under Legend in Figure 1 is labeled "Approximate Area 1 Boundary". The HD believes that the blue dashed line is inconsistent with the previously identified southern boundary of Area 1 as referenced in the December 2014 Bridgeton Landfill Thermal Isolation Barrier Investigation Phase 1 Report.

The HD appreciates the opportunity to provide comments on the proposed work plan addendum. If you have questions concerning the content of this letter, please contact Mark Milward at (314) 615-4116 or Laura Yates at (314) 615-4035.

Sincerely

Faisal Khan, MBBS, MPH Director

cc: Paul V. Rosaco, P.E., Engineering Management Support
Aaron Schmidt, P.E., Deputy Director, MDNR Division of Environmental Quality (via email)
Mike Zlatic, P.E., Environmental Administrator, HD - Air and Waste Management (via email)
John Haasis, P.E., Program Manager, HD - Solid Waste Management Program (via email)
Laura Yates, Supervisor, Field Services, HD - Solid Waste Management Program (via email)
Mark Milward, R.G., Project Engineer, HD - Solid Waste Management Program (via email)